Michigan Department
Of Transportation
5100B (12/14)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

	REQUISITION NUMBER	DUE DATE	TIME DUE
	1793	7/13/2015	noon EST
MDOT PROJECT MANAGER Adam Penzenstadler, Carrie Warren	JOB NUMBER (JN) 127732	CONTROL SECTION (CS) 82024, 82025	

DESCRIPTION
Traffic Signal Design related to the replacement of 8 bridges within the limits of the I-94 Modernization Project in Detroit

MDOT PROJECT MANAGER: Check all items to be included in RFP WHITE = REQUIRED ** = OPTIONAL Check the appropriate Tier in the box below			**CONSULTANT:** Provide only checked items below in proposal
☐ **TIER 1 ($50,000 - $150,000)**	☑ **TIER II ($150,000-$1,000,000)**	☐ **TIER III (>$1,000,000)**	
☐	☑	☐	Understanding of Service **
☐	☑	☐	*Innovations*
☐	☑	☐	Organizational Chart
☐	☑	☐	Qualifications of Team
Not required as part of Official RFP	Not required as part of Official RFP	☐	Quality Assurance/Quality Control **
☐	☑	☐	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation **
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) Resumes will only be accepted for Best Value Selections	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes.** Resumes limited to 2 pages per key staff personnel.)

PROPOSAL AND BID SHEET EMAIL ADDRESS – mdot-rfp-response@michigan.gov

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100J – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

(These forms are not included in the proposal maximum page count.)

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest (Consultant/Vendor Selection Guidelines for Services Contracts."

RFP SPECIFIC INFORMATION

☑ ENGINEERING SERVICES ☐ BUREAU OF TRANSPORTATION PLANNING ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☑ NO ☐ YES DATED_____ THROUGH _____

☑ **Prequalified Services** – See the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalified Services** – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, is on file with MDOT's Office of Commission Audits
This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.
Form 5100J is required with proposal for all firms performing non-prequalified services on this project.

☑ **Qualification Based Selection** - Use Consultant/Vendor Selection Guidelines.

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

☐ **Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required – no proposal required.)

BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the email address: mdot-rfp-response@michigan.gov. Failure to comply with this procedure may result in your bid being rejected from consideration.

PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the **ACEC-MDOT Partnership Charter Agreement** and are asked to follow all communications, issues resolution and other procedures and guidance's contained therein.

NOTIFICATION
MANDATORY ELECTRONIC SUBMITTAL

Proposals submitted for this project must be submitted electronically.

The following are changes to the Proposal Submittal Requirements:

- Eliminated the Following Requirements:
  - Safety Program
  - Communication Plan
  - Past Performance as *a separate section*
  - Separate section for DBE Statement of goals. Include information in Qualification of Team section

- Implemented the Following Changes:
  - All proposals require an Organization Chart
  - Resumes must be a maximum of two pages
  - Only Key (lead) staff resumes may be submitted
  - Tier III proposal reduced from 19 to 14 pages
  - Forms 5100D, 5100I, and 5100G combined – 5100D
  - Forms 5100B and 5100H combined – 5100B
  - RFP's will be posted on a weekly basis -- on Mondays

The following are Requirements for Electronic Submittals:

- Proposals must be prepared using the most current guidelines
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include "N/A" after the bookmark title.
  Example: Understanding of Service – N/A
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to MDOT-RFP-Response@michigan.gov
- MDOT's requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
  - Requisition#XXX_Company Name.PDF
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

If the submittals do not comply with the requirements, they may be determined unresponsive.

The Consultant's will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. **Consultants are responsible for ensuring the MDOT receives the proposal on time.**

****Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response****

Required Bookmarking Format:

I. Request for Proposal Cover Sheet Form 5100D
   A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
II. Understanding of Service
   A. Innovations
III. Qualifications of Team
   A. Structure of Project Team
      1. Role of Firms
      2. Role of Key Personnel
   B. Organization Chart
   C. Location
IV. Quality Assurance / Quality Control Plan
V. Resumes of Key Staff
VI. Pricing Documents/Bid Sheet (if applicable)

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NOTIFICATION
E-VERIFY REQUIREMENTS

E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: http://www.dhs.gov/E-Verify.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

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ADDITIONAL PROPOSAL INFORMATION TO BE SCORED

This selection will follow a normal tier two process with the following supplemental information for clarity of how the proposals will be evaluated:

1. Proposals up to 7 (seven) pages not including key staff resumes and MDOT forms. Consultants are requested to be as succinct as possible and only use the number of pages required to provide the requested information.

2. **Understanding of Service and Innovations:** The Consultant should describe their understanding of the bridges and approaches identifying site specific challenges and potential solutions, design concepts to minimize "throw away" work and strategies to support achievement of MDOT's project goals.

3. **Qualifications of Team:** In addition to providing the qualifications of the team and organization structure, the Consultant should identify specific key staff to be assigned to the I-94 Project Office, percentage of their time committed to the project while working on the project, relevant design experience; the Michigan licensed professional engineer(s) assigned to this contract, technical capabilities (i.e. MicroStation, ProjectWise, etc.) and proposed engagement with MDOT, MDOT Owner's Representative Consultant (ORC), other MDOT Design Support Consultants and MDOT's Bridge Design Consultants who will all be collocated in the I-94 Project Office.

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
DESIGN SERVICES
Traffic Signals Design Support

Date: May 15, 2015

CONTROL SECTION(S): 82024 and 82025

JOB NUMBER(S): 127732

PROJECT LOCATION:
Various Locations (See Below), City of Detroit, Wayne County, Michigan.

PROJECT DESCRIPTION:
This Request for Proposal (RFP) includes eight (8) bridges located within the limits of the I-94 Modernization Project, between I-96 and Conner Avenue in the City of Detroit.

****MDOT will be selecting one Consultant team to complete the design support work based on the responses to this single RFP.****

This scope is for traffic signals design support services, based on the project design needs likely exceeding the capacity of the Small Business Design Support consultants. Work involved includes preparing traffic signal plans and special provisions and related work necessary for new installation or modernization of electronic traffic signal control devices for the project which consists of:

Second Avenue over I-94 (S01 of 82024, JN 113125)
Anticipated Construction Letting: December 2016
The scope of work includes the removal and replacement of the existing bridge carrying Second Avenue over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

Cass Avenue over I-94 (S02 of 82024, JN 113553)
Anticipated Construction Letting: December 2016
The scope of work includes the removal and replacement of the existing bridge carrying Cass Avenue over I-94 site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

Brush Street over I-94 (S05 of 82024, JN 113558)
Anticipated Construction Letting: December 2017
The scope of work includes the removal and replacement of the existing bridge carrying Brush Street over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

Chene Street over I-94 (S08 of 82024, JN 113124)
Anticipated Construction Letting: December 2016
The scope of work includes the removal and replacement of the existing bridge carrying Chene Street over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

Mt. Elliott Street over I-94 (S10 of 82024, JN 113552)
Anticipated Construction Letting: December 2016
The scope of work includes the removal and replacement of the existing bridge carrying Mt. Elliott Street over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

Concord Avenue over I-94 (S11 of 82024, JN 113551)
Anticipated Construction Letting: December 2017
The scope of work includes the removal and replacement of the existing bridge carrying Concord Avenue over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

Cadillac Avenue over I-94 (S02 of 82025, JN 113126)
Anticipated Construction Letting: December 2016
The scope of work includes the removal and replacement of the existing bridge carrying Cadillac Avenue over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

French Road over I-94 (S03 of 82025, JN 113127)
Anticipated Construction Letting: December 2017
The scope of work includes the removal and replacement of the existing bridge carrying French Road over I-94, site demolition, roadway approaches, utility relocation, traffic & safety improvements, electrical work, maintenance of traffic during construction and landscaping.

All of the proposed bridges and roadway approaches shall be designed to accommodate the improvements being proposed as part of the I-94 Modernization Project.

The scope of work will be verified at a Scope Verification Meeting with MDOT personnel, the MDOT Owner's Representative Consultant (HNTB Michigan, Inc.), Small Business Design Support Consultants, the selected Design Support Consultants from this selection and MDOT's Bridge Design Consultants. The meeting will be scheduled prior to the Consultant's submittal of the Priced Proposal to the MDOT Project Manager.

Certain scope of work items will be completed as part of this project under separate MDOT contracts with the MDOT's Owner's Representative Consultant (ORC), MDOT Bridge Design Consultants, and the MDOT Design Support Consultants defined further in this Request for Proposal.

****All Consultant teams under this Design Support contract will be required to participate in a design partnership workshop and be a signatory party to the I-94 Project Partnering Agreement to document their commitment to being a part of a collocated, collaborative team focused on achieving MDOT's project goals for this project.****

STAFFING REQUIREMENTS:

Design Support Consultants delivering services under this Design Support contract will be required to work collaboratively with the Michigan Department of Transportation, and other MDOT consultants performing design services on this project. **Design Support Consultants selected under this RFP will be required to provide a minimum of one key design personnel present in the I-94 Project Office 60% of the time while working on the project through plan completion.** The I-94 Project office will be located within 3 miles of the I-94 Modernization Project limits. Appropriate safety protocols will be in place and secure parking will be made available to all personnel working at the I-94 Project Office. MDOT and MDOT's ORC will lead the collaboration between the selected Design Support Consultants and the Bridge Design Consultants and will have project representatives in the Project Office. MDOT's Bridge Design Consultants will be required to provide key design staff present in the I-94 Project Office 60% of the time while working on the project through plan completion. The I-94 Project Office will provide Design Support Consultant key design staff and Bridge Design staff with a workstation, computer, software, printing capability, office supplies and other resources necessary to deliver their services while working at the I-94 Project Office. One work station will be made available for each Consultant contract while working at the I-94 Project Office. For Consultants who propose more than one key staff working at the I-94 Project Office the Consultant may need to provide additional equipment and software.

Integration and cohousing of project team members will enhance collaboration between all parties and support the goal of creating a strong mentoring environment to support technical and business growth by Small Business firms into new MDOT prequalification categories. Small Businesses providing design services for the I-94 projects will be engaged in a personalized Technical Training curriculum to strengthen their technical capabilities and understanding of MDOT project delivery. If applicable as determined by MDOT. It is envisioned that the MDOT prequalified Design Support Consultants will be engaged in the training effort. Hours will be allocated at the Scope Verification meeting to the Design Support Consultants to support their work in this capacity.

ANTICIPATED SERVICE START DATE: August 2015

ANTICIPATED SERVICE COMPLETION DATE: January 2018

DBE PARTICIPATION REQUIREMENT: 0%

PRIMARY PREQUALIFICATION CLASSIFICATION(S):

Traffic Signal Design

SECONDARY PREQUALIFICATION CLASSIFICATION(S):

None

PREFERRED QUALIFICATIONS AND CRITERIA (FOR NON-CLASSIFIED SERVICES):

1) UTILITY COORDINATION

☒ MDOT and MDOT's ORC shall be responsible for project Utility Coordination

MDOT PROJECT MANAGER:

Adam Penzenstadler, P.E. and Carrie Warren, P.E.

All correspondence related to this Request for Proposals should be directed to Terry Stepanski using the contact information included below:

Terry A. Stepanski, P.E.
Senior Project Manager
MDOT Bureau of Highway Development
425 W. Ottawa Street
Lansing, MI 48909
Phone: (517) 241-0233
E-Mail: stepanskit@michigan.gov

CONFLICT OF INTEREST:

MDOT's ORC performing the role of lead consultant in the areas of road design, bridge design or maintaining traffic will not be allowed to participate or join any design team on this project. HNTB Michigan, Inc. and Alfred Benesch and Company are the lead consultants in these areas and will not join any design teams. Other MDOT ORC team members in non-lead roles may participate. A sub-consultant to the ORC may be allowed to participate as a consultant but will also be subject to a review for potential conflict of interest, determined on a case by case basis.

CONSTRUCTION COST:

A. The estimated cost of construction is:

Location	Bridge Cost	Road Cost	Total Cost
Second Avenue	$11,550,000	$600,000	$12,150,000
Cass Avenue	$6,600,000	$600,000	$7,200,000
Brush Street	$8,800,000	$500,000	$9,300,000
Chene Street	$6,900,000	$300,000	$7,200,000
Mt. Elliott Street	$18,100,000	$3,500,000	$21,600,000
Concord Avenue	$5,200,000	$500,000	$5,700,000
Cadillac Avenue	$4,800,000	$600,000	$5,400,000
French Road	$4,600,000	$300,000	$4,900,000

B. The estimated cost of real estate is: $8,900,000

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design their portion of the project within the programmed amount.

If at any time the estimated cost of construction varies by more than 5% of the current programmed amount, then the Consultant will be required to submit a letter to the MDOT Project Manager justifying the changes in the construction cost estimate.

REQUIRED MDOT GUIDELINES AND STANDARDS:

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Published MDOT Design Advisories, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, AASHTO LRFD Bridge Design Specifications, etc.).

The Consultant is required to use the current MDOT_02 workspace version of Bentley MicroStation for CADD applications and Bentley GEOPAK for road design. Consultant shall comply with all MDOT CADD standards and file naming conventions.

Bridge plan views must be drawn so reference point coordinates coincide with the survey using MDOT_02 workspace levels to the fullest extent possible and named in accordance with MDOT's standard naming conventions. CADD file naming conventions are on the MDOT wiki http://mdotwiki.state.mi.us/design/images/9/9f/Cadd_Filenames.pdf

MISCELLANEOUS INFORMATION:

Plans for the existing bridges and an Accelerated Bridge Construction (ABC) Concepts Report can downloaded from the MDOT FTP site (ftpmdot.state.mi.us). The information can be found under the file name "I-94 Modernization Project" at the following link: ftp://ftpmdot.state.mi.us/I-94%20Modernization%20Project/. The I-94 Detailed Engineering Report and its appendices are also available on DVD upon request.

MDOT has contracted with a team lead by HNTB to serve as the Owner's Representative Consultant (ORC) for the I-94 Modernization Project. HNTB's scope of work includes assisting MDOT with the review of the plans, special provisions and cost estimates for the bridges included in this Request for Proposal to ensure consistency with the goals for the larger project and with the design and detailing across the bridges included in this Request for Proposal. Comments from MDOT's ORC approved by the MDOT Project Manager shall be considered the same as comments directly from MDOT, and must be addressed by the selected Design Support Consultant.

MDOT RESPONSIBILITIES:

A. Schedule and/or conduct the following:
   1. Project related meetings
   2. Base Plan Review
   3. The Plan Review
   4. Omissions/Errors/Check
   5. Utility Coordination Meetings
   6. Final Trnsport item cost estimates using Consultant supplied SAPW files.

B. Furnish pertinent reference materials.

C. Provide electronic copies of the aerial survey and supplemental pickup survey completed in 2009. This will include control point information. Provide electronic copies of the additional pick up survey and structure survey currently underway once completed. The additional survey will also include the completion of topographic pick up survey for each of the structures identified above. Once the project survey is complete, the data will be provided to the selected Small Business Design Support Consultants.

D. Furnish prints of an example of a similar project and old plans of the area, if available.

E. Obtain all permits for the project as outlined in the next section using Consultant supplied information.

F. Furnish a base utility drawing in Microstation format showing the locations of known existing utilities.

G. Distribute Consultant prepared plans and applicable special provisions to utility owners within the project limits for the purpose of facilitating utility coordination and scheduling utility coordination meetings.

H. Coordinate any necessary utility relocations.

I. Furnish traffic data for I-94 and the local road over the bridges.

J. Furnish the number of lanes required over the bridge based on a traffic analysis currently being completed by the MDOT ORC.

K. Furnish a pavement design.

L. Provide information regarding ROW needs and permits through MDOT's ORC.

M. Determine the type of aesthetics to be incorporated into the design of the project.

N. Assemble the plan review submittal packages using information provided by the selected Consultants.

O. Furnish FTP site for software download and instructions for the MDOT Stand Alone Proposal Estimator's Worksheet (SAPW).

MDOT OWNER'S REPRESENTATIVE CONSULTANT RESPONSIBILITIES:

A. Utility Coordination and Investigation (and drawings)

B. Public Involvement

C. Accelerated Bridge Construction Concepts and Strategies

D. Right-of-Way Services

E. Traffic Capacity Analysis and Geometric Studies

F. Safety Studies

G. Aesthetics

H. Design Surveys

I. Small Business training program (includes technical and executive training)

J. Project office mobilization

MDOT BRIDGE DESIGN CONSULTANT RESPONSIBILITES:

A. Bridge Design

B. Bridge Load Rating Analysis

C. Geotechnical Engineering to support the foundation design for structures.

D. Other necessary design services not addressed in the Design Support Contracts

E. Prepare and package for each bridge the roadway approach plans, details and specifications prepared by the Consultant for design and construction. This project will be required to follow the Design Deliverable Enhancement Package (DDEP).

F. Establish the roadway profile for the bridge roadway over I-94 and provide assistance to the Small Business Design Support Consultants responsible for the road approach and site demolition plans.

MDOT SMALL BUSINESS DESIGN SUPPORT CONSULTANT RESPONSIBILITIES:

Complete the design of certain elements of the project to be determined prior to the Scope Verification Meeting with MDOT personnel. The design services to be performed by the MDOT Small Business Design Support Consultants will be determined on a per bridge basis including, but not limited to the following:

A. Road and Streets (Road approach and site demolition plans)

B. Maintaining Traffic Plans and Provisions

C. Street/Freeway Lighting

D. Permanent Freeway Traffic Signing Plans

E. Permanent Non-Freeway Traffic Signing Plans

F. Pavement Markings Plans

G. Traffic Signal Design

H. Freeway Lighting

I. Municipal Utility Design

J. ITS Design

K. Landscaping

L. Roadway Geotechnical Investigations

TRAFFIC SIGNAL DESIGN SUPPORT CONSULTANT RESPONSIBILITIES:
Complete the design of this project including, but not limited to the following:

The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job and perform field operations in accordance with the Department's Personal Protective Equipment (PPE) policy as stated in the MDOT Guidance Document #10118.

Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, ROW submittal dates, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.

A. The Project Manager for each Consultant Team will participate in regular coordination meetings with MDOT and other design consultants. The frequency and location of these meetings will be determined prior to submittal of the Priced Proposal.

B. Design the project to minimize the amount of "throw away" work. Throw away work is defined as features constructed as part of this project that will be removed to accommodate the full build out of the I-94 Modernization Project. This should include, but is not limited to using the span configurations recommended in the Detailed Engineering Report for the project, transitioning from the proposed grades at the bridge to the existing grades along the local roads as efficiently as possible, minimizing the grade raise required along the local road.

C. Design and develop traffic signal plans and proposal materials, engineering documents, and related work necessary for new installation or modernization of electronic traffic signal control devices. Review soil borings provided by others to assist in design of traffic signal foundations which may include strain pole foundation design as required. MDOT has developed a strain pole foundation design table for box span signals. This table can be found on the Traffic and Safety

website in the signals correspondence and guidelines area. A special foundation design may be necessary depending on site specific soil properties and proposed signal layout and geometry. Refer to suggested Traffic Signal Design Procedure: MDOT website. Any existing or proposed pedestrian pushbuttons and ramps must be accessible per ADA guidelines and MDOT design practices.

D. Coordinate extensively with other MDOT design consultants to provide any information needed to complete the design tasks they are responsible for.

E. Incorporate the selected maintenance of traffic concept into the design the roadway approaches. The selected Design Support Consultant will be given the opportunity to provide comments on the maintenance of traffic concept prior to the selection of the concept.

F. Incorporate the required street lighting into the design of the roadway approaches. This may include, but is not limited to providing lighting foundations and the appropriate conduit to accommodate the proposed lighting.

G. Incorporate the required permanent signing into the design of the roadway approaches. This may include, but is not limited to including overhead sign supports.

H. Incorporate the selected aesthetic details into the design of the project. This may include landscaping plans along the roadway approaches. MDOT's ORC will provide details for the aesthetic treatments to the selected Consultant.

I. Incorporate Consultant geotechnical recommendations into the design of the roadway approaches. This may include, but is not limited to sign/ITS foundations and pavement structure design.

J. Prepare any unique special provisions required for the project and coordinate with other consultants. The MDOT Project Manager must be informed of the need for any unique special provisions and of the need to modify any previously approved special provisions to apply to the project. Unique special provisions, including previously approved special provisions that are modified to apply to this project, **should be submitted for review and approval a minimum of 6 weeks prior to the Plan Completion for the project.**

K. Provide solutions to any unique problems that may arise during the design of this project.

L. Public information and/or stakeholder meetings will be required for this project, and is included in the scope of services for MDOT's ORC. The Consultant may be asked to assist with the public outreach by providing information that will be used at Public Information Meetings. This may include, but is not limited to, providing CAD drawings, prints of developed plan sheets and attending meetings to answer questions related to the project.

M. Compute and verify all plan quantities.

N. The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.

O. Maintain a Design Project Record on MDOT's ProjectWise system which includes a history of significant events (changes, comments, etc.) which influenced the development of the plans, dates of submittals and receipt of information.

P. The Consultant shall review the CPM network for the construction of this project prepared by MDOT's ORC for conformance with the design of the roadway approaches and maintenance of traffic.

Q. The Consultant representative shall record and submit type-written minutes for all project related meetings to the MDOT Project Manager using MDOT's ProjectWise system within two weeks of the meeting. MDOT will provide and distribute official meeting minutes for the Plan Review Meeting.

R. The Consultant will provide to MDOT at the scheduled submittal dates, electronic copies (in Adobe PDF format) of the required specifications and plan set materials for distribution by MDOT for all reviews for this project.

S. ***The Consultant Design Team will provide to MDOT a letter with each submittal required for this project certifying that the Project QA/QC plan has been followed and completed. The QA/QC reviews must be completed before submitting the package to MDOT.***

T. Prepare and submit electronically (native format or Adobe PDF) any information, calculations, hydraulic studies, or drawings required by MDOT for acquiring any permit (ie. NPDES, DEQ, etc), approvals (i.e. county drain commission) and related mitigation. MDOT will submit permit requests.

U. Attend any project-related meetings as directed by the MDOT Project Manager.

V. The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.

W. The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.

X. The Consultant shall be responsible for showing on the plans the location and names of all existing utilities within the limits of the project utilizing the base utility drawing furnished by the MDOT ORC. In the course of resolving utility conflicts, the Consultant shall make modifications to the plans or design details and provide assistance as directed by the MDOT Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns are addressed on the plans involving utilities. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project as directed by the MDOT ORC and/or Project Manager.

Y. On the first of each month, the Consultant Project Manager shall submit a monthly project progress report to the Project Manager via e-mail.

Z. Commit technical project staff to the MDOT lead Technical Training Program which will focus on the following.

1. MDOT P/PMS Task Network and CPM Scheduling
2. Document control and project team communications protocol
3. Design criteria (i.e. applicable Federal/State standards, design exceptions)
4. Software (ProjectWise, Microstation V8i, Geopak SS2/3)
5. Plan Development & Packaging (CAD Standards, e-Proposal)
6. MDOT Specifications and Special provisions (FUSP, FUSS, Unique)
7. Quantity take-offs (Pay Items) and Cost Estimating (SAPW)
8. Quality Control/Quality Assurance and Constructability reviews
9. Design assistance during construction (RFI, Shop drawing review)

The plans shall be submitted to MDOT as follows:

A. Base Plans (Pre-GI Review Meeting) showing the geometric layout which fits within available project right-of-way. This shall be accompanied by a detailed estimate of costs.

B. Preliminary Plans (Plan Review Meeting) that are approximately 70% complete shall be accompanied by an estimate of cost based on the quantities of major pay items shown on the plans.

C. Pre-final plans (Pre-OEC plans) consisting of final plans that are approximately 90% complete and any special provisions and supplemental specifications that may be required.

D. Final plans (OEC plans), Contract Quantities, updated cost estimate, and any special provisions and supplemental specification that may be required. Plan Review comments should be reflected in all sheets.

E. Regular Over-The-Shoulder (OTS) Reviews consisting of at least monthly "in progress" plan submittals showing design progress for use in coordinating and packaging with other consultants. Note "in progress" plan submittals <u>are not</u> considered formal submittals subject to QA/QC certification.

The Consultant will proceed with Preliminary Plans upon receiving MDOT approval of the Base Plans. Additionally, the Consultant will proceed with Final Plans once FHWA has approved the Preliminary Plans.

All work shall conform to AASHTO specifications, MDOT specifications, and MDOT design and detailing practices. All submittals (excluding in progress submittals) to MDOT shall require quality assurance review and meet the attached quality assurance document. The Consultant shall maintain office records, submit monthly progress reports to the MDOT Project Manager, and submit MDOT vouchers with their billings. The Consultant is advised that MDOT considers plans 30% complete upon approval of the base plans, 70% complete when the preliminary plans are distributed, and 100% complete when final plans are submitted for review.

All submittals to MDOT shall be dated and identified by structure number, control section, job number including phase, MDOT contract number, route and location. An electronic copy of each submittal will uploaded to MDOT's ProjectWise system.

A file containing project related correspondence, design, and any information resulting from research shall be submitted to MDOT with final deliverables.

DELIVERABLES:

The Consultant shall deliver all computer files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, Roadway Designer Templates etc.) on DVD, and upload all files to ProjectWise system, as directed by the MDOT Project Manager. All CADD/GEOPAK files shall be created and identified with standard MDOT file names in conformance with MDOT's I-94 Document Control Plan. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's CADD standards which are published monthly to the MDOT website. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

Proposal documents shall be submitted in their native format with standard naming conventions as well as combined into one Adobe PDF file in the sequence specified by MDOT. To provide text search capabilities the combined proposal shall be created by converting native electronic files to PDF. Scanning to PDF is discouraged except in instances where it is necessary to capture a legally signed document or a hard copy version of a document is all that exists.

Plan sheets shall be printed to an Adobe PDF set in 11" x 17" format. For final Plan Turn-In, a title sheet shall be printed, signed, sealed, and then scanned for inclusion with the Adobe PDF set. The original title sheet shall be sent to the MDOT Project Manager.

At final Plan Turn-In, Reference Information Documents (RID) shall be delivered to MDOT with standard naming conventions and content in conformance with MDOT's I-94 Document Control Plan. The RID files included will depend on the design survey and work type of the project. These files range from CADD, existing terrain, proposed cross sections, 3D models and files generated for Automated Machine Guidance (AMG) and automated inspection/stakeout activities.

Stand Alone Proposal Estimator's Worksheet (SAPW) shall be used to generate the txt and csv files necessary for import into the Trns*port bid letting software. The SAPW files shall be transmitted electronically utilizing MDOT's ProjectWise system.

The project removal, construction, and profile sheets will require a scale of **1"=80' or as approved by the MDOT Project Manager.**

All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager. All plans, specifications, and other project related items are subject to review and approval by MDOT and/or MDOT's ORC.

MDOT PERMITS:
The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW). This information can be obtained through Joe Rios, Utilities/Permits Section, Real Estate Division at (517) 241-2103.

PROJECT SCHEDULE:
All projects will follow the same design schedule with the scheduled Plan Completion date of **August 2, 2016**. The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

MDOT Preconstruction Tasks Consultant Checklist P/PMS Form Only

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

Version 13 Updated 03-02-2015

For questions on specific tasks, refer to the P/PMS Task Manual located on the MDOT Website.
For assistance in accessing this manual, please contact:
Dennis Kelley: (517) 373-4614

Please indicate with a check in the box next to each task number whether you believe that task will require consultant involvement on the job. Milestones (a specific event at a point in time) are italicized and underlined. See the P/PMS Task Manual for more details. Scheduling assistance may be accomplished with estimated completion dates. While not part of P/PMS, an Authorization Milestone and Post-Design Tasks have been included for your reference.

STUDY (EARLY PRELIMINARY ENGINEERING)

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)
		CONSULTANT CONTRACT AUTHORIZATION/EXECUTION	/ /
		INFORMATION GATHERING/STUDIES	
☐	☐	1115 Traffic Data Collection for Studies	/ /
☐	☐	1120 Prepare Traffic Analysis Report for Studies	/ /
☐	☐	1125 Traffic Capacity Analysis for Studies	/ /
☐	☐	1155 Request/Perform Safety Analysis for Studies	/ /
☐	☐	1300 Traffic Impact Study	/ /
☐	☐	1350 Determine Need for Interstate Access Change Request	/ /
☐	☐	1400 Feasibility Study	/ /
☐	☐	1500 Corridor Study	/ /
☐	☐	1555 Interstate Access Change Request	/ /
☐	☐	*155M FHWA Approval of Interstate Access Change Request*	/ /
☐	☐	1600 Access Management Study Plan	/ /
☐	☐	1700 Other Miscellaneous Studies	/ /
		EPE SCOPING ANALYSIS	

☐	☐	2100	Scope Verification and Initiation of EPE Activities	/	/
☐	☐	2115	Prepare Traffic Analysis Report for EPE/Design	/	/
☐	☐	2120	Traffic Data Collection for EPE/Design	/	/
☐	☐	2125	Traffic Capacity Analysis for EPE/Design	/	/
☐	☐	2130	Prepare Project Purpose and Need	/	/
☐	☐	*213M*	*Concurrence by Regulatory Agencies with the Purpose and Need*	/	/
☐	☐	2140	Develop and Review Illustrative Alternatives	/	/
☐	☐	2155	Request/Perform Safety Analysis for EPE/Design	/	/
☐	☐	2160	Prepare and Review EIS Scoping Document	/	/
☐	☐	*216M*	*Public Information Meeting*	/	/

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

STUDY (EARLY PRELIMINARY ENGINEERING) (cont'd)

YES	**NO**	**P/PMS TASK NUMBER AND DESCRIPTION**		**DATE TO BE COMPLETED BY** (mm/dd/yyyy)	
		EPE DRAFT ANALYSIS			
☐	☐	2310	Conduct Technical SEE Studies	/	/
☐	☐	2311	Cultural Resources Survey	/	/
☐	☐	2312	Recreational Survey – Section 4(f)/6(f)	/	/
		EPE DRAFT ANALYSIS (cont'd)			
☐	☐	2313	Endangered Species Survey	/	/
☐	☐	2314	Wetland Assessment	/	/
☐	☐	2315	Wetland Mitigation	/	/
☐	☐	2316	Other Technical Reports	/	/
☐	☐	2321	Prepare for Aerial Photography	/	/
☐	☐	2322	Finish/Print Aerial Photography	/	/
☐	☐	2330	Collect EPE Geotechnical Data	/	/
☐	☐	2340	Develop and Review Practical Alternatives	/	/
☐	☐	*233M*	*Aerial Photography Flight*	/	/
☐	☐	2360	Prepare and Review EA	/	/
☐	☐	*236M*	*Approval of EA by FHWA*	/	/
☐	☐	2370	Prepare and Review Draft EIS	/	/
☐	☐	*237M*	*Approval of Draft EIS by FHWA*	/	/
☐	☐	2380	Distribute EA	/	/
☐	☐	*238M*	*Public Hearing for EA*	/	/
☐	☐	2390	Distribute DEIS	/	/
☐	☐	*239M*	*Public Hearing for DEIS*	/	/
		EPE FINAL ANALYSIS			

☐	☐	2510 Determine and Review Recommended Alternative	/	/
☐	☐	*250M Concurrence by Reg Agencies with Recom Alternatives*	/	/
☐	☐	2525 Prepare and Review Engineering Report	/	/
☐	☐	2530 Prepare and Review Request for FONSI	/	/
☐	☐	*252M Approval of FONSI by FHWA*	/	/
☐	☐	2540 Prepare and Review FEIS	/	/
☐	☐	*254M Approval of FEIS by FHWA*	/	/
☐	☐	2550 Obtain ROD	/	/
☐	☐	*255M ROD Issued by FHWA*	/	/
☐	☐	2570 ITS Concept of Operations	/	/
		CONTAMINATION INVESTIGATION		
☐	☐	2810 Project Area Contamination Survey (PCS)	/	/
☐	☐	2820 Preliminary Site Investigation (PSI) for Contamination	/	/

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING - DESIGN

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)	
		DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION		
☒	☐	3130 Verify Design Scope of Work and Cost	/	/
☐	☐	3310 Prepare Aerial Topographic Mapping	/	/
☐	☐	3320 Conduct Photogrammetric Control Survey	/	/
☐	☐	3321 Set Aerial Photo Targets	/	/
☐	☐	3325 Geotechnical Structure Site Characterization	/	/
☐	☐	3330 Conduct Design Survey	/	/
☐	☐	3340 Conduct Structure Survey	/	/
☐	☐	3350 Conduct Hydraulics Survey	/	/
☒	☐	3360 Prepare Base Plans	/	/
☒	☐	*311M Utility Notification*	/	/
☐	☐	3365 Pre-Conceptual ITS Design and Meeting	/	/
☐	☐	3370 Prepare Structure Study	/	/
☐	☐	3375 Conduct Value Engineering Study	/	/
☒	☐	3380 Review Base Plans	/	/
☐	☐	3385 Preliminary Load Rating	/	/
☒	☐	*332M Base Plan Review (Pre-GI Inspection)*	/	/
☐	☐	3390 Develop the Maintaining Traffic Concepts	/	/
		PRELIMINARY PLANS PREPARATION		

☐	☐	3500	Develop Transportation Management Plan	/ /
☐	☐	3510	Perform Roadway Geotechnical Investigation	/ /
☐	☐	3520	Conduct Hydraulic/Hydrologic and Scour Analysis	/ /
☐	☐	3522	Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/ /
☐	☐	3530	Geotechnical Foundation Engineering Report	/ /
☐	☐	3535	Conduct Str. Review for Arch. & Aesthetic Improvements	/ /
☐	☐	3540	Develop the Maintaining Traffic Plan	/ /
☒	☐	3551	Prepare/Review Preliminary Traffic Signal Design Plan	/ /
☐	☐	3552	Develop Preliminary Pavement Marking Plan	/ /
☐	☐	3553	Develop Preliminary Non-Freeway Signing Plan	/ /
☐	☐	3554	Develop Preliminary Freeway Signing Plan	/ /
☒	☐	3555	Prepare/Review Preliminary Traffic Signal Operations	/ /
☐	☐	3570	Prepare Preliminary Structure Plans	/ /
☒	☐	3580	Develop Preliminary Plans	/ /
☐	☐	3585	Final ITS Concept Design and Meeting	/ /
☒	☐	3590	Review The Plans	/ /
☒	☐	*352M*	*THE Plan Review Meeting*	/ /
☐	☐	3595	Conduct ITS Structure Foundation Investigation	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING - DESIGN (cont'd)

YES	**NO**	**P/PMS TASK NUMBER AND DESCRIPTION**	**DATE TO BE COMPLETED BY** (mm/dd/yyyy)
		UTILITIES	
☐	☐	3610 Compile Utility Information	/ /
☐	☐	3615 Compile ITS Utility Information	/ /
☐	☐	3650 Coordinate RR Involvement for Grade Separations	/ /
☐	☐	3655 Coordinate RR Involvement for At-Grade Crossings	/ /
☒	☐	3660 Resolve Utility Issues	/ /
☐	☐	*360M Utility Conflict Resolution Plan Distribution*	/ /
☒	☐	*361M Utility Meeting*	/ /
☐	☐	3670 Develop Municipal Utility Plans	/ /
☐	☐	3672 Develop Special Drainage Structures Plans	/ /
☒	☐	3675 Develop Electrical Plans	/ /
☐	☐	3680 Preliminary ITS Communication Analysis	/ /
☒	☐	3690 Power Design (Power Drop in Field)	/ /

MITIGATION/PERMITS

☐	☐	3710	Develop Required Mitigation	/	/
☐	☐	3720	Assemble Environmental Permit Applications	/	/
☐	☐	3730	Obtain Environmental Permit	/	/
			FINAL PLAN PREPARATION		
☐	☐	3815	Geotechnical Structure Design Review	/	/
☒	☐	3821	Prepare/Review Final Traffic Signal Design Plan	/	/
☐	☐	3822	Complete Permanent Pavement Marking Plan	/	/
☐	☐	3823	Complete Non-Freeway Signing Plan	/	/
☐	☐	3824	Complete Freeway Signing Plan	/	/
☒	☐	3825	Prepare/Review Final Traffic Signal Operations	/	/
☐	☐	3830	Complete the Maintaining Traffic Plan	/	/
☒	☐	3840	Develop Final Plans and Specifications	/	/
☒	☐		*380M Plan Completion*	/	/
☐	☐	3850	Develop Structure Final Plans and Specifications	/	/
☒	☐	3870	Hold Omissions/Errors Check (OEC) Meeting	/	/
☐	☐	3875	Final Load Rating	/	/
☒	☐		*387M Omissions/Errors Checks Meeting*	/	/
☒	☐		*389M Plan Turn-In*	/	/
☐	☐	3880	CPM Quality Assurance Review	/	/
☐	☐	3890	Final ITS Communication Analysis	/	/

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING – RIGHT OF WAY

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)
		EARLY RIGHT OF WAY WORK	
☐	☐	4100 Real Estate Pre-Technical Work (combines 411M, 4120)	/ /
☐	☐	4150 Real Estate Technical Work (combines 4130, 4140)	/ /
☐	☐	*413M Approved Marked Final ROW*	/ /
		ROW APPRAISAL	
☐	☐	4350 Real Estate Appraisals (combines 4411, 4412, 4413, 4420)	/ /
		ROW ACQUISITION	
☐	☐	4450 Real Estate Acquisitions (combines 4430, 4710, 4720)	/ /
☐	☐	4510 Conduct Right Of Way Survey & Staking	/ /
☐	☐	*442M ROW Certification*	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

POST LETTING/AWARD TASKS (for reference only)

YES	NO	P/PMS TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
☐	☐	4810	Complete Acquisition Process	/ /
☐	☐	4820	Manage Excess Real Estate	/ /
☐	☐	4830	Provide Post-Certification Relocation Assistance	/ /
☐	☐	4910	Conduct ROW Monumentation	/ /
☐	☐	5010	Construction Phase Engineering and Assistance	/ /
☐	☐	5020	Prepare As-Built Drawings	/ /

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.